

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for hermetically packaging a bulk acoustic resonator device including the steps of:
 - providing a first wafer having a first surface and a second surface that face toward opposite directions, with a plurality of bulk acoustic resonator devices disposed on the first surface, the first wafer further having a plurality of cavities that are formed at positions corresponding to the bulk acoustic resonator devices and are open at the second surface;
 - providing a second wafer having a plurality of wells;
 - providing a third wafer;
 - bonding the second wafer to the first surface of the first wafer and bonding the third wafer to the second surface of the first wafer to form a composite wafer in which the bulk acoustic resonator devices of the first wafer are aligned with the wells of the second wafer and sealed by the second wafer, and the cavities of the first wafer are sealed by the third wafer; and

forming holes in the composite wafer after formation of the composite wafer
so that the holes reach metal tracks connected to the bulk acoustic resonator devices, and
filling the holes with metal; and

separating individual bulk acoustic resonator devices by sawing the composite wafer.

2. (Previously Presented) A method as claimed in claim 1, wherein each of the bulk acoustic resonator devices comprises a piezoelectric layer sandwiched between two metal electrodes.

3. (Canceled)

4. (Previously Presented) A method as claimed in claim 1 wherein metal layers are deposited on the edges of chips including the bulk acoustic resonator devices after they have been separated in order to allow electrical contacts to be made to the bulk acoustic resonator devices.

5. (Canceled)

6. (Previously Presented) A method as claimed in claim 1 wherein one or more of the wafer bonding processes is undertaken under a vacuum.

7. (Previously Presented) A method as claimed in claim 1 wherein one or more of the wafer bonding processes used is anodic bonding employing a borosilicate bonding layer.

8. (Previously Presented) A method as claimed in claim 1 wherein one or more of the wafer bonding processes used employs a glass as the bonding layer and the bond is made by a combination of heat and pressure.

9. (Previously Presented) A method as claimed in claim 1 wherein one or more of the wafer bonding processes used employs a metal or alloy as the bonding layer and the bond is made by a combination of heat and pressure.

10. (Previously Presented) A bulk acoustic resonator device made by the method according to claim 1.

11. (Previously Presented) A bulk acoustic resonator device according to claim 10 comprising a piezoelectric layer sandwiched between two metal electrodes.

12. (Currently Amended) A bulk acoustic resonator device according to claim 11 comprising: a substrate; and a dielectric layer, one of the metal electrodes, the piezoelectric layer, and the other one of the metal electrodes that are stacked one by one on the substrate.

13. (Previously Presented) A bulk acoustic resonator device according to claim 12, further comprising a top layer which can be either a conductor or an insulator.

14. (Canceled)

15. (Previously Presented) A method for hermetically packaging a bulk acoustic resonator device including the steps of:

providing a first wafer having a first surface and a second surface that face toward opposite directions, with a plurality of bulk acoustic resonator devices disposed on the first surface;

providing a second wafer having a plurality of wells;
bonding the second wafer to the first surface of the first wafer to form a composite wafer in which the bulk acoustic resonator devices of the first wafer are aligned with the wells of the second wafer and sealed by the second wafer;

forming holes in the composite wafer after formation of the composite wafer so that the holes reach metal tracks connected to the bulk acoustic resonator devices, and filling the holes with metal; and

separating individual bulk acoustic resonator devices by sawing the composite wafer.

16. (Previously Presented) A method as claimed in claim 15, wherein each of the bulk acoustic resonator devices comprises a piezoelectric layer sandwiched between two metal electrodes.

17. (Previously Presented) A method as claimed in claim 15, wherein a third wafer is bonded to the second surface of the first wafer in the step of forming the composite wafer.

18. (Previously Presented) A method as claimed in claim 15, wherein the step of forming the composite wafer is performed under a vacuum.

19. (Previously Presented) A method as claimed in claim 15, wherein the step of forming the composite wafer uses anodic bonding employing a borosilicate bonding layer.

20. (Previously Presented) A method as claimed in claim 15, wherein the step of forming the composite wafer employs a glass as the bonding layer and the bond is made by a combination of heat and pressure.

21. (Previously Presented) A method as claimed in claim 15, wherein the step of forming the composite wafer employs a metal or alloy as the bonding layer and the bond is made by a combination of heat and pressure.

22. (Previously Presented) A bulk acoustic resonator device made by the method according to claim 15.

23. (Previously Presented) A bulk acoustic resonator device according to claim 22 comprising a piezoelectric layer sandwiched between two metal electrodes.

24. (Previously Presented) A bulk acoustic resonator device according to claim 23 comprising: a substrate; and a dielectric layer, one of the metal electrodes, the piezoelectric layer, and the other one of the metal electrodes that are stacked one by one on the substrate.

25. (Previously Presented) A bulk acoustic resonator device according to claim 24, further comprising a top layer which can be either a conductor or an insulator.